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ANIMAL HEALTH ADVISORY

Anthrax in Livestock

Recent Diagnosis Serves as Reminder to Hoosiers

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Anthrax (*Bacillus anthracis*) has been diagnosed on a Southern Indiana beef cattle farm. A veterinarian collected tissue samples for laboratory testing after the animal died unexpectedly. Only a single, mixed-breed bull died; other animals in the herd have not shown clinical signs. The infected animal was incinerated on-site, and the farm was placed under a 30-day quarantine and observation order by the Indiana State Board of Animal Health (BOAH). BOAH advised vaccination for all other animals in the herd.

The situation **does not pose a public health threat**. While humans can contract anthrax from animals, the risk is low. Anthrax is NOT transmitted from person to person. Only people who had direct contact with the infected animal are at any risk of infection, and that risk is believed to be minimal at this time. All of those individuals have been notified and are being followed up with appropriately by health officials.

While anthrax is not an uncommon finding in livestock in Western states, this is unusual for Indiana. BOAH's historic records do not indicate the last time this disease was found in the state.

The anthrax bacterium can occur naturally in the soil in some areas. Grazing animals are at highest risk of contact, as they may consume spores from contaminated pastures or hay. Biting flies and other insects can also spread spores. Again, while this is an unusual finding in Indiana, livestock and horse owners should be aware of signs and know when to contact a veterinarian.

Signs of Anthrax

Clinical signs of anthrax vary by species and the means by which the animal is infected:

- Infection that occurs via the mouth or nostrils will produce signs quickly, followed by sudden death. Signs of infection may not be noticed.
- Sudden death is often accompanied by bleeding from body openings. The carcass will generally bloat and decompose rapidly. Blood will have contain a high level of bacteria and should be avoided.
- Less acute infections may cause the animal to stagger, have difficulty breathing, tremble, collapse and die. Horses may have colic. Edema and swelling may be seen over the body, particularly at the brisket. Illness is observed for 1 or 2 days, but it may last 5 days; signs are preceded by fever, with a period of excitement in which the animal may charge anyone nearby. This is followed by depression in cattle or sheep.
- The anthrax organism may sometimes localize in the throat area. The tongue, throat and neck are extremely swollen and a frothy blood-tinged discharge comes from the mouth. Although this is the typical form of anthrax observed in swine, it may also occur in cattle and sheep.

- Skin infections will occur around the point of entry from an injury or insect bite. The affected area initially is hot and swollen and becomes cold and insensitive. Later, the infection can become generalized.

What To Do

- Contact a veterinarian immediately about any clinical signs that suggest anthrax.
- Isolate the animal/carcass as much as possible from other animals (including farm pets, wildlife, etc.) and people.
 - This may include penning live animal(s).
 - For carcasses, tarping can help minimize contact.
- Do not move the animal from the site.

After a Diagnosis

Following an anthrax diagnosis, a BOAH veterinarian will contact the attending veterinarian and the animal owner to collect a case history and try to determine the source of the infection.

Exposed animals may need to be treated with antibiotics, while dead animals need to be disposed of promptly on-site. More information about this process is online at: www.ag.ndsu.edu/pubs/ansci/beef/v561.pdf

An effective vaccine is available from veterinary supply companies. All animals on the site should be vaccinated upon completing antibiotic treatments, then boosted according to the label. After a diagnosis, future vaccination regimens should include anthrax vaccine as a preventative measure.

About Anthrax

Anthrax is a bacterium that can infect many species, primarily grazing animals. The bacteria produce spores that may be found in the soil in certain regions, primarily Western states. The spores are very hearty in the environment and may remain dormant in the soil for many years. Cases of the disease generally occur after the soil is disturbed, such as flooding. Anthrax in animals is a reportable disease to the Indiana State Board of Animal Health (BOAH). The disease is classified as a zoonotic (able to infect humans); however, the risk of infection from an animal is low.

For more information, visit BOAH's website at: www.boah.in.gov.

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